

AMENDMENTS

In the Claims:

Please amend claims 1, 7, 19, 22, 27 and 32, add claims 38-41 and cancel claims 13-17 without prejudice as shown in the following claim listing.

1. (Currently amended) A duct joining system, comprising:

a first duct having a male end;

a flexible seal and locking mechanism retained on said male end of said first duct; and

a second duct having a female end having a first cross sectional area and a first bead of a second cross sectional area that is greater than said first cross sectional area, ~~said second duct may be joined to the first duct by sliding said female end over said male end, said flexible seal and locking mechanism being compressed within said first cross sectional area, whereby upon sliding said female end over said male end to where said flexible seal and locking mechanism is aligned with said first bead, said flexible seal and locking mechanism expanding~~^{expands} into said first bead to form both a seal and a mechanical lock that provides resistance to the separation of said first duct and said second duct greater than a resistance to the joining of said first duct and said second duct.

2. (Original) The duct joining system of Claim 1, wherein said flexible seal and locking mechanism is a flexible gasket held on said male end at an angle relative to normal and away from said end of said first duct.

3. (Original) The duct joining system of Claim 1, wherein said resistance to the separation of said first duct and said second duct is at least three times greater than said resistance to the joining of said first duct and said second duct.

4. (Previously presented) The duct joining system of Claim 1, further comprising a second bead positioned after said flexible seal and locking mechanism that acts as a stop bead to

ensure said second duct is properly positioned with said first duct when said first duct and said second duct are joined.

5. (Previously presented) The duct joining system of Claim 4, further comprising a third bead on said first duct located between said flexible seal and locking mechanism and said end of said first duct, wherein said third bead has a diameter that is less than the diameter of said second bead.

6. (Original) The duct joining system of claim 1, wherein one of said first duct and said second duct is a fitting.

7. (Currently amended) A duct joining system comprising:
a first duct having a female end;
a flexible seal and locking mechanism retained within said female end of said first duct; and

a second duct having a male end having a first cross sectional area and a first bead of a second cross sectional area that is less than said first cross sectional area, ~~said second duct may be joined to the first duct by sliding said female end over said male end, said flexible seal and locking mechanism being compressed by said first cross sectional area, whereby upon sliding said female end over said male end to where said flexible seal and locking mechanism is aligned with said first bead, said flexible seal and locking mechanism expanding~~ into said first bead to form both a seal and a mechanical lock that provides resistance to the separation of said first duct and said second duct greater than a resistance to the joining of said first duct and said second duct.

8. (Original) The duct joining system of Claim 7, wherein said flexible seal and locking mechanism is a flexible gasket held on said female end at an angle relative to normal and away from said end of said first duct.

9. (Original) The duct joining system of Claim 7, wherein said resistance to the separation of said first duct and said second duct is at least three times greater than said resistance to the joining of said first duct and said second duct.

10. (Previously presented) The duct joining system of Claim 7, further comprising a second bead positioned after said flexible seal and locking mechanism that acts as a stop bead to ensure said second duct is properly positioned with said first duct when said first duct and said second duct are joined.

11. (Previously presented) The duct joining system of Claim 10, further comprising a third bead on said first duct located between said flexible seal and locking mechanism and said end of said first duct, wherein said third bead has a diameter that is greater than the diameter of said second bead.

12. (Original) The duct joining system of Claim 7, wherein one of said first duct and said second duct is a fitting:

Claims 13-16 (Cancelled)

19. (Currently amended) An apparatus comprising: a first duct; a second duct, wherein a portion of said first duct is inserted into a portion of said second duct; and means for providing a seal and a mechanical connection between said first duct and said second duct when said portion of said first duct is inserted into a portion of said second duct, wherein ~~said means is carried by said portion of said first duct and~~ said second duct has a raised bead into which said means is seated to form said seal and said mechanical connection when said portion of said first duct is inserted into said portion of said second duct.

20. (Previously presented) The apparatus of Claim 19, wherein said first duct has a depressed bead into which said means is seated to form said seal and said mechanical connection when said portion of said first duct is inserted into said portion of said second duct.

21. (Previously presented) The apparatus of Claim 19, wherein said means is a flexible gasket.

22. (Currently amended) The apparatus of Claim 21, said first duct having a bead, said flexible gasket being mounted closer to the front of said first duct than said ~~second~~first duct bead, said flexible gasket having an angle relative to normal of said first duct.

23. (Previously presented) The duct joining system of Claim 1, wherein said first bead comprises a circumferential groove in said second duct that has said second cross sectional, and said flexible seal and locking mechanism expands into said circumferential groove to form both a seal and a mechanical lock that provides resistance to the separation of said first duct and said second duct greater than the resistance to the joining of said first duct and said second duct.

24. (Previously presented) The duct joining system of Claim 1, wherein said flexible seal and locking mechanism comprises a member that expands into said second bead, said member being a substantially triangular shape.

25. (Previously presented) The duct joining system of Claim 7, wherein in said first bead comprises a circumferential groove in said second duct, and said flexible seal and locking mechanism expands into said circumferential groove to form both a seal and a mechanical lock that provides resistance to the separation of said first duct and said second duct greater than the resistance to the joining of said first duct and said second duct.

26. (Previously presented) The duct joining system of Claim 7, wherein said flexible seal and locking mechanism comprises a member that expands into said second bead, said member being substantially triangular in shape.

27. (Currently amended) A duct joining system comprising:

a first duct including a member disposed on an exterior surface of said first duct about a cross-section thereof; and

a second duct including a groove extending outward from an interior surface of said second duct about a cross-section thereof, ~~so that when said first duct is inserted into said second duct and whereby upon sliding said second duct over said first duct until said member is in said groove a seal and a resistance to a separation of said first duct and said second duct greater than a resistance to the insertion of said first duct into said second duct is provided by said member and said groove.~~

28. (Previously presented) The duct joining system of Claim 27, wherein the member comprises a flexible gasket that is at an angle relative to a normal of the first duct.

29. (Previously presented) The duct joining system of Claim 27, further comprising a stop bead on said exterior surface of said first duct.

30. (Cancelled)

31. (Previously presented) The duct joining system of Claim 27, wherein one of said first duct and said second duct is a fitting.

32. (Currently amended) A duct joining system comprising:

a first duct including a member on an exterior surface thereof, said member having a height from said exterior surface; and

a second duct including a groove extending outward from an internal surface thereof, said groove having a depth from an interior surface thereof, wherein the depth of the groove and the height of the member are selected so that ~~when said first duct is inserted into said second duct and upon sliding said second duct over said first duct until said member is in said groove, a seal and a resistance to a separation of said first duct and said second duct greater than a resistance to the insertion of said first duct and said second duct is provided by said member and said groove.~~

33. (Previously presented) The duct joining system of Claim 32, wherein said groove comprises a circumferential groove, and said member flexes into said circumferential groove to form both a seal and a mechanical lock that provides the resistance to the separation of said first duct and said second duct greater than the resistance to the insertion of said first duct into said second duct.

34. (Previously presented) The duct joining system of Claim 32, wherein the member comprises a flexible gasket that is at an angle relative to a normal of the first duct.

35. (Previously presented) The duct joining system of Claim 32, wherein the member flexes into the groove.

36. (Cancelled)

37. (Previously presented) The duct joining system of Claim 32, one of said first duct and said second duct is a fitting.

38. (New) The duct joining system of Claim 19 wherein said means is carried by said portion of said first duct.

39. (New) A duct joining system comprising:

a first duct;

a member on an exterior surface of said first duct; and

a second duct including a groove extending outward from an internal surface thereof, wherein said groove and member are configured to form a seal and a resistance to separation of said first and second ducts greater than a resistance to the insertion of said first duct and said second duct upon insertion of said first duct into said second duct to a position where said member is in said groove.

40. (New) The duct joining system of Claim 39 wherein said member is a flexible gasket.

41. (New) A duct joining system comprising a first duct having an annular recess and a flexible seal disposed therein and a second duct having an annular recess, said system having an unassembled state, where said first duct with said flexible seal disposed in its annular recess is disconnected from said second duct, and an assembled state where a portion of one of said first and second ducts is in the other of said first and second ducts and said flexible seal is seated in both said first duct annular recess and said second duct annular recess so that it forms a seal and lock between said first and second ducts.